

TABLE 2 - TRANSIT BUS (CNG)

Montgomery County Government Division of Fleet Management Services CNG Transit Bus Program

Montgomery County is located just north of Washington D.C. in Maryland. Montgomery County is a consolidated metropolitan statistical area (CMSA) with a 1980 population of over 250,000 with non-attainment of ambient ozone or carbon monoxide standards. The County has a fleet of over 2,500 vehicles, of which 232 are transit buses that are maintained at two facilities within the County. There are eight fuel sites throughout the County with CNG Fast Fill and Slow Fill pumping stations located at the main repair facility at 16630 Crabbs Branch Way in Rockville, Maryland. The Slow Fill site is currently fueling five CNG transit buses. During a recent parking lot improvement, the Slow Fill site was modified to increase the fueling ability to 38 CNG buses. Montgomery County plans to purchase additional CNG powered buses in the near future as funds become available.

Montgomery County leads the Washington Metropolitan area in the alternative fueled vehicle arena. The County has the only alternative fueled transit buses operating in the area. The County has the support of its political leadership and affluent population in the acquisition and operation of clean fuel transit vehicles.

CHALLENGES / OPPORTUNITIES:

The Division of Fleet Management Services (DFMS) is responsible for vehicle acquisition and Maintenance. The Division of Transit Services, which is a separate division, is responsible for operating transit services in Montgomery County. The first challenge that DFMS faced was selling the concept of clean fuel vehicles to the user, Transit Services. Transit Services leases the transit buses from Fleet Management and the CNG buses would have a slightly higher lease rate because of the increased acquisition price. The major benefit of CNG vehicles is the lower operating costs over the life of the vehicle due to lower fuel costs. The fuel savings would offset the acquisition cost. The life cycle costs combined with the environmental benefits and visibility within the County contributed to Transit Services' support of clean fuel buses. The second challenge was the shorter operating range of the CNG buses. After an initial learning period about the buses shorter operating range, the CNG buses were put on runs that did not exceed their range and also put on split runs so midday fueling could be accomplished. Another challenge was helping the operators overcome the fear of operating buses with high-pressure fuel vessels filled with CNG fuel. After training classes were provided to the users on the properties of CNG gas, most of the operator's fears were removed. Mechanic training was a challenge that was easily overcome because manufacturer training for the CNG buses was specified when the bids went out. Fueling station issues with the local Gas Company proved to be a win-win situation for both parties. Because of the anticipated high fuel usage from Montgomery County and other local municipal CNG vehicles, fueling station installation costs were minimized. The cost of the site preparation was the only real cost that Montgomery County had to budget.

COSTS:

The CNG transit buses that Montgomery County purchased had an added cost of approximately \$70,000.00 per bus. The County replaces transit buses every 15 years and this initial expense will be recovered with the savings provided with the lower fuel cost over the life of the bus. Washington Gas Co. supplied and installed the fueling equipment at no cost to the County. The cost associated with the fast fill site in 1994 was \$8,500.00 for the site preparation. The cost for the Slow Fill site preparation was \$4,500.00. Washington Gas Co. provided mechanic and operator training at no cost and the engine manufacturer as part of the bid package also provided mechanic training. Fleet Management installed a methane detection system in the shop at a cost of 10,123.00. Federal tax exemptions for vehicle purchases and fueling site installations are available. In Maryland, state tax credits are also available for vehicle purchases.

The fuel costs for CNG buses (\$0.126/mile) were lower than the diesel buses (\$0.177/mile) as expected. The CNG buses use approximately one thousand one hundred (1,100) gallon equivalents per bus per month. The cost of diesel fuel is \$0.87 per gallon and the cost for CNG is \$0.72 per gallon equivalent.

EXPANSION PLANS:

Montgomery County currently operates five CNG transit buses. Anticipated additional future CNG bus purchases include ten buses for each fiscal year FY00 through FY02, which will increase the fleet of CNG transit buses to thirty-five by the year 2002. The County will also increase the number of CNG vehicles in the light automotive fleet and is also considering CNG powered medium/heavy duty trucks.

PUBLIC / POLITICAL SUCCESSES:

The diesel transit buses in Montgomery County are painted blue and white. The CNG powered buses are green and white with graphics of blue skies and clouds around the top of the bus. The CNG buses are "eye-catchers" and have been well received by the public. The mechanics are familiar with working on the buses and are ASE certified for CNG vehicles. The operators have become comfortable driving the CNG buses and their shorter driving range. Fleet Management has not had an out of fuel road call for some time now.

SUMMARY:

The cost of implementing a CNG transit fleet can be minimized through research and negotiations. There are tax incentives and funding available for alternative fuel vehicle programs and vehicles. Negotiating with gas suppliers for the cost of fueling equipment can minimize the initial expenses. Life cycle cost analysis will provide data that can help with vehicle purchasing decisions. Start planning for the future. Mandated Alternative Fueled Vehicle purchasing requirements are inevitable. We must reduce dependency on foreign oil suppliers and do our part to protect our environment. Environmental protection is a unilateral responsibility. 90% of CNG produced comes from the United States. There is a 200 year supply of CNG in the United States

The cleaner air we are providing our citizens resulting from the Montgomery County Clean Fuel Transit Bus Program is our greatest success.